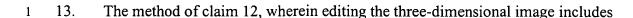
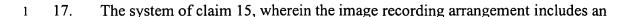
## What is claimed is:

- 1 1. A method for analyzing an integrated circuit die, the method comprising:
- removing substrate from a selected portion of the die;
- 3 simultaneously recording a plurality of images of the selected portion as
- 4 substrate is being removed therefrom; and
- 5 creating a three-dimensional image of the selected portion of the die with the
- 6 plurality of images and analyzing the die therefrom.
- 1 2. The method of claim 1, wherein removing substrate includes cross-sectioning
- 2 the die.
- 1 3. The method of claim 1, wherein removing substrate includes using a FIB.
- 1 4 The method of claim 1, wherein recording a plurality of images includes using a
- 2 SEM.
- 5. The method of claim 1, wherein removing substrate includes using a FIB
- 2 produced by a dual FIB/e-beam device, and wherein recording a plurality of images
- includes using the e-beam of the dual FIB/e-beam device to create a SEM image.
- 1 6. The method of claim 5, further comprising programming a controller adapted to
- 2 control the dual FIB/e-beam device to effect the recording of a sufficient amount of
- 3 SEM images to create a three-dimensional image of the selected portion.

- 1 7. The method of claim 1, wherein removing substrate from the selected portion
- 2 includes exposing a defect in the die, and wherein creating a three-dimensional image
- 3 includes creating a three-dimensional image of the defect.
- 1 8. The method of claim 1, wherein creating a three-dimensional image includes
- 2 combining the plurality of images of the selected portion and creating a combined
- 3 image therefrom.
- 1 9. The method of claim 1, further comprising using the three-dimensional image to
- 2 detect a defect in the die.
- 1 10. The method of claim 9, wherein creating a three-dimensional image includes
- 2 creating an image of the defect, further comprising using the image of the detected
- 3 defect to analyze the defect.
- 1 11. The method of claim 1, wherein creating a three dimensional image includes
- 2 using selected ones of the plurality of images of the selected portion to create a three
- dimensional image of less than the entire selected portion.
- 1 12. The method of claim 1, further comprising editing the three dimensional image
- to create an edited image of only a portion of the three-dimensional image.



- 2 creating an image of a cross-section of the selected portion.
- 1 14. A system for analyzing an integrated circuit die, the system comprising:
- 2 means for removing substrate from a selected portion of the die;
- means for simultaneously recording a plurality of images of the selected portion
- 4 while substrate is being removed therefrom; and
- 5 means for creating a three-dimensional image of the selected portion of the die
- 6 with the plurality of images.
- 1 15. A system for analyzing an integrated circuit die, the system comprising:
- a substrate removal arrangement adapted to remove substrate from a selected
- 3 portion of the die;
- an image recording arrangement adapted to simultaneously record a plurality of
- 5 images of the selected portion while substrate is being removed therefrom; and
- an image creation arrangement adapted to create a three-dimensional image of
- 7 the selected portion of the die with a plurality of images recorded by the imaging
- 8 arrangement.
- 1 16. The system of claim 15, wherein the substrate removal arrangement includes a
- 2 FIB device



- 2 e-beam device adapted to create a SEM image.
- 1 18. The system of claim 15, wherein the substrate removal arrangement and the
- 2 image recording arrangement are included in a single dual FIB/e-beam device adapted
- to remove substrate with the FIB and to create a SEM image with the e-beam.
- 1 19. The system of claim 18, wherein the image creation arrangement is adapted to
- 2 use the SEM image to create the three-dimensional image.
- 1 20. The system of claim 15, wherein the image creation arrangement includes a
- 2 computer adapted to create the three-dimensional image in response to image
- 3 characteristic selections.